Cardiovascular magnetic resonance : a key to imaging cardiac function

Stellingen

behorende bij het proefschrift

Cardiovascular magnetic resonance

A key to imaging cardiac function

1. Magnetic resonance (MR) fluoroscopy allows cardiac catheterization and closure of atrial septal defects in an experimental model. Small intracardiac shunts are reliably detected with noninvasive MR imaging.

2. Real-time MR imaging saves time at the cost of reduced image quality. It enables the rapid assessment of hemodynamics and ischemia induced regional wall motion abnormalities. If image quality is sufficient we might replace standard scans with real-time scans. But who is accepting “sufficient” image quality? And if we saved time we would immediately add a new imaging sequence to the scan protocol anyway.

3. Infarct size is accurately measured with MR imaging. Hypertrophied hearts are more sensitive to ischemic injury than normal hearts.

4. MR imaging is the method of choice to detect and characterize myocardial infarcts. Using echocardiography, small infarcts will be missed.

5. Patients with cardiac syndrome X are suffering from microvascular dysfunction. In these patients, the subendocardial perfusion reserve assessed with MR imaging is significantly lower than the subepicardial perfusion reserve.

6. Focal myocardial fibrosis in patients with dilated cardiomyopathy is detected and quantified by MR imaging. Focal fibrosis is related to inflammation rather than increased interstitial fibrosis.

7. The systolic function of the right ventricle, the forgotten chamber, can accurately be assessed with MR imaging and is more impaired in dilated cardiomyopathy than in ischemic heart disease.

8. MR sanners are huge machines and cardiac MR imaging requires more time than other imaging modalities. Thus, we clearly have two reasons why the results of MR scans must be of superior quality.

9. Artsen willen steeds alles in beeld brengen om iets uit te sluiten (“uitsluiteritis”). Vervolgens controleren ze regelmatig of ook alles goed blijft (“controlitis”).

10. Cardiologen en radiologen zijn in staat om samen te werken.

11. Auch für das Promovieren gilt: Doppelt hält besser!!

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